

HICO 3 PHASE INDUCTION MOTOR	PERFORMANCE DATASHEET	ISSUED	01/15/2026
		MODEL	100HP 4P

NAMEPLATE INFORMATION										
OUTPUT		RPM	VOLTS	Hz	FRAME SIZE	ENCLOSURE TYPE	S.F.	INS. CALSS	RATING	AMB. TEMP.
HP	kW									
100	75	1785	230/460	60	405TC	TEFC	1.25	F	CONT.	40°C
TEMP. RISE	NEMA DESIGN	kVA CODE	Class/Division Hazardous Location							
B	B	G	Class I, Division 2, Group B, C & D							

TYPICAL PERFORMANCE DATA						
EFFICIENCY (%)				POWER FACTOR (%)		
FULL LOAD		3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD
MIN.	NOM.					
94.5	95.4	95.5	95.1	83.7	80.9	73.3

CURRENT					
FULL LOAD AMPS	3/4 LOAD AMPS	1/2 LOAD AMPS	NO LOAD AMPS	STARTING CURRENT AMPS	STARTING CURRENT % FLC
234.5/117.3	181.8/90.9	134.3/67.2	79.7/39.8	1524.3/762.5	650

* Usable at 100HP 50Hz 380V 141.8A 1480R.P.M. S.F. 1.0 EFF. 94.6% (IE2)

TORQUE				ALLOWABLE STARTS PER HOUR	
FULL LOAD (lb-ft)	LOCKED ROTOR % FLT	BREAK DOWN % FLT	PULL UP % FLT	COLD	HOT
294.4	170	265	115	2	1

MECHANICAL DATA					
INERTIA			SOUND PRESSURE LEVEL @ 3 ft (dB(A))	PROTECTION GRADE	WEIGHT (Lbs)
ROTOR WR ² (lb-ft ²)	NEMA LOAD WK ² (lb-ft ²)	MAX ALLOWABLE WK ² (lb-ft ²)			
29.466	441	999	75	55	1156

BEARING		GREASE	MOUNTING	
DE	ODE		TYPE OF CONSTRUCTION	TERMINAL BOX DESIGN
6316C3	6313C3	GREASE(MOBIL Polyrex EM)	RIGID MOUNTING	NEMA

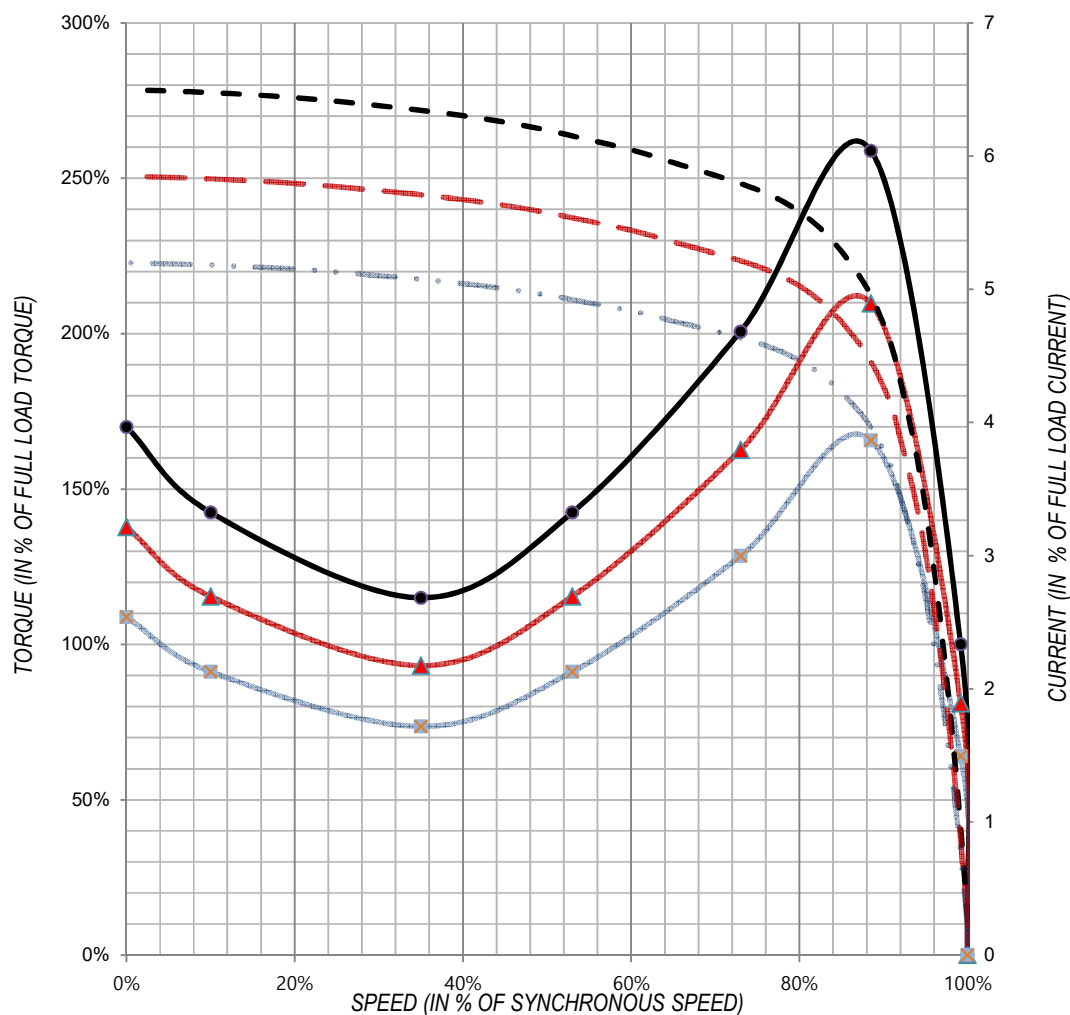
INVERTER DUTY DATA					
TYPE	HZ	HP	RPM	TORQUE(LB-FT)	NOTE
VARIABLE TORQUE	3~60	0.0125~100	90~1800	0.736~294.4	WITH TEMP. RISE CLASS F & S.F. 1.0
CONSTANT TORQUE	6~60	10~100	180~1800	294.4	
CONSTANT HP	60~90	100	1800~2700	294.4~196.267	

DRAWING NO.	ES1AS180524	REVISION	0.1
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ALL DATA ABOVE ARE SUBJECTED TO CHANGE WITHOUT NOTICE.

HICO 3 PHASE INDUCTION MOTOR	SPEED - TORQUE & CURRENT CURVE				Curve No.
					1ST

OUTPUT	100	HP	POLES	4	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	294.4	lb-ft	FULL LOAD CURRENT	34.5/117.3	A
LOCKED ROTOR TORQUE	170	%	LOCKED-ROTOR CURRENT	650	%
BREAKDOWN TORQUE	265	%	SPEED (at FULL LOAD)	1785	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	29.466	lb-ft ²

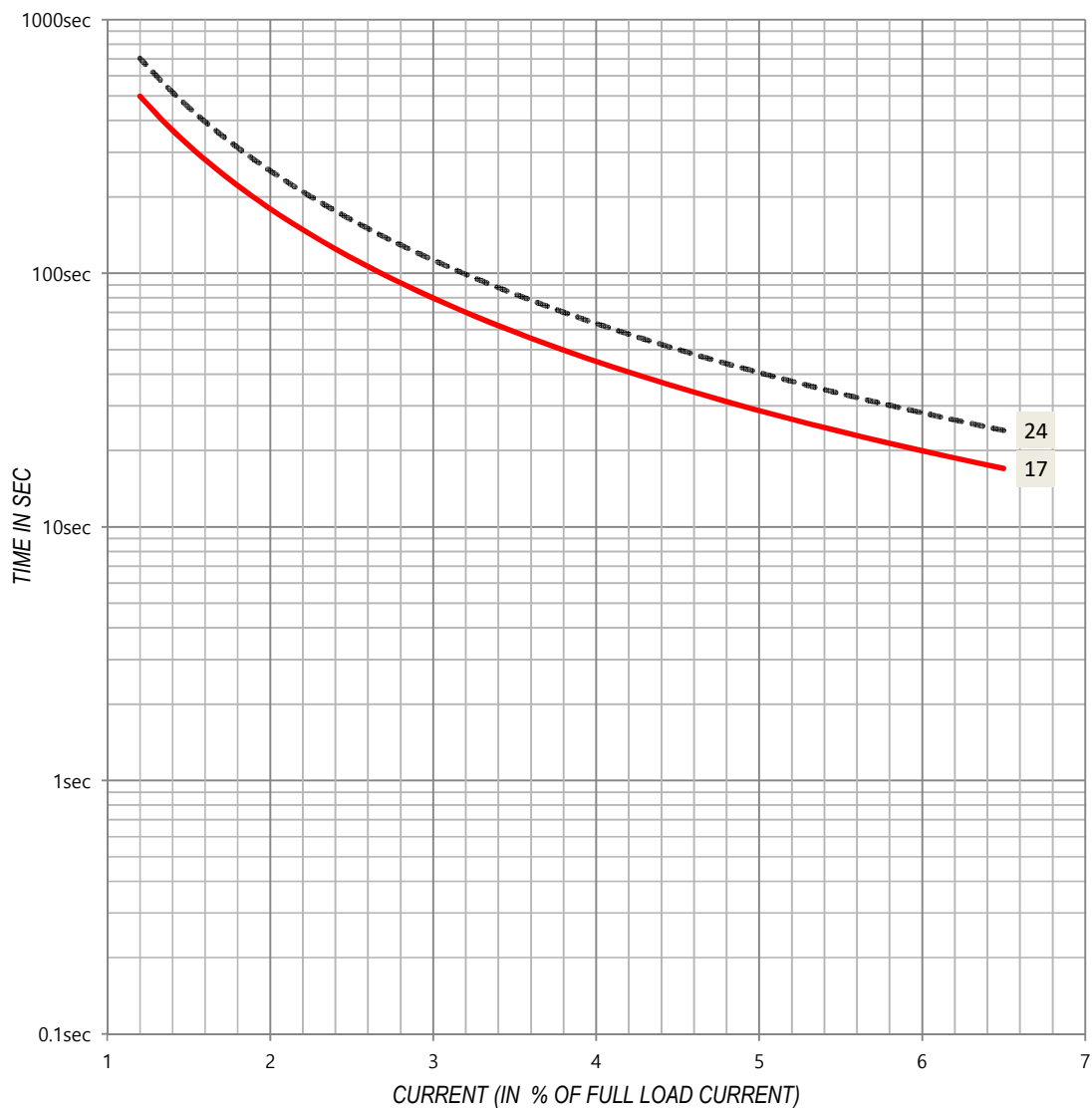


NOTE

	A : SPEED-TORQUE CURVE AT	100% RATED VOLTAGE
	B : SPEED-TORQUE CURVE AT	90% RATED VOLTAGE
	C : SPEED-TORQUE CURVE AT	80% RATED VOLTAGE
	D : SPEED-CURRENT CURVE AT	100% RATED VOLTAGE
	E : SPEED-CURRENT CURVE AT	90% RATED VOLTAGE
	F : SPEED-CURRENT CURVE AT	80% RATED VOLTAGE

HICO 3 PHASE INDUCTION MOTOR	THERMAL LIMIT & TIME - CURRENT CURVE				Curve No.
					1TL

OUTPUT	100	HP	POLES	4	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	294.4	lb-ft	FULL LOAD CURRENT	134.5/117.3	A
LOCKED ROTOR TORQUE	170	%	LOCKED-ROTOR CURRENT	650	%
BREAKDOWN TORQUE	265	%	SPEED (at FULL LOAD)	1785	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	29.466	lb-ft ²

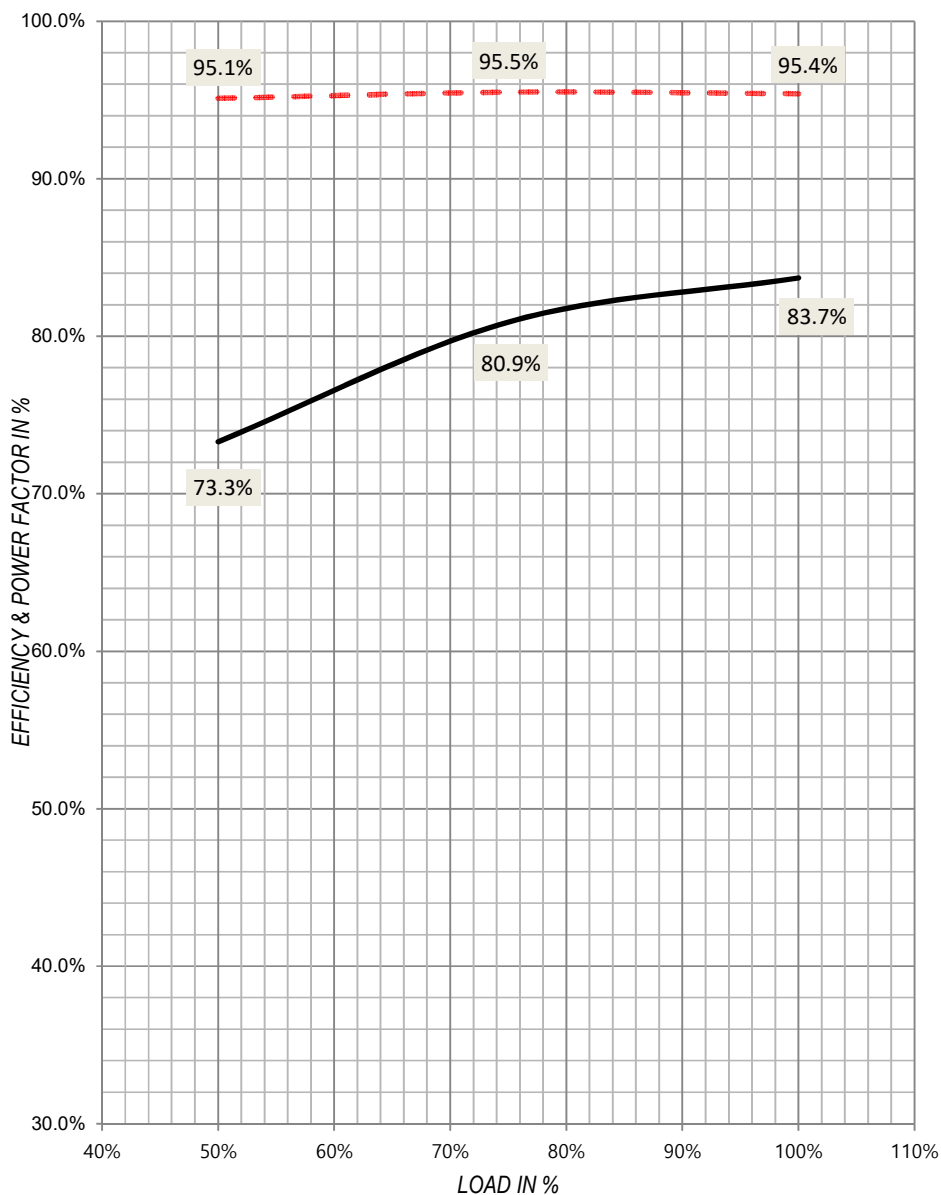


NOTE

- A : THERMAL LIMIT CURVE AT HOT CONDITION
- B : THERMAL LIMIT CURVE AT COLD CONDITION
- - - C : ※TIME-CURRENT CURVES(C,D,E) NEED BELOW DATA TO BE DRAWN
- - - D : * LOAD GD² AT MOTOR SHAFT
- - - E : * SPEED-TORQUE CURVE OF LOAD

HICO 3 PHASE INDUCTION MOTOR	LOAD - POWER FACTOR & EFFICIENCY CURVE				Curve No.
					1PE

OUTPUT	100	HP	POLES	4	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	294.4	lb-ft	FULL LOAD CURRENT	134.5/117.3	A
LOCKED ROTOR TORQUE	170	%	LOCKED-ROTOR CURRENT	650	%
BREAKDOWN TORQUE	265	%	SPEED (at FULL LOAD)	1785	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	29.466	lb-ft ²



NOTE

- A : LOAD - POWER FACTOR CURVE
- - - B : LOAD - EFFICIENCY CURVE

HICO

3 PHASE INDUCTION MOTOR

CONNECTION DIAGRAM

ISSUED

12/01/2024



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